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MEMORANDUM

DATE: August 9, 2012

FROM: Mark Woodke, START-3 Chemist, E & E, Seattle, Washington *MW*

TO: Jeff Fetter, START-3 Project Manager, Seattle, Washington

SUBJ: **Organic Data Summary Check,
Fourth Avenue and Gamble Parking Lot Site, Anchorage, Alaska**

REF: TDD: 12-01-0004 PAN: 002233.0757.01SI

The data summary check of 20 soil/sediment samples collected from the Fourth Avenue and Gamble Parking Lot site located in Anchorage, Alaska, has been completed. Analyses for Volatile Organic Compounds (VOCs) were performed by Liberty Analytical Corporation, Cary, North Carolina.

The samples were numbered:

JRYT5	JRYT6	JRYT7	JRYT8	JRYT9	JRYW1
JRYW2	JRYW3	JRYW5	JRYW6	JRYW7	JRYW8
JRZD3	JRZD6	JRZD7	JRZD8	JRZD9	JRZE0
JRZE1	JRZE2				

No discrepancies were noted.

Tetrachloroethene results in samples JRYW5, JRYW6, JRYW7, and JRYW8 were qualified as estimated quantities with a high bias (JH) based on associated rinsate blank results. Other positive sample results less than the Contract Required Quantitation Limit (CRQL) were not additionally qualified based on field blank results.

USEPA SF



1409874



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

August 9, 2012

Reply to: Donald M. Brown
Attn of: OEA-095

MEMORANDUM

Subject: Data Validation Report for the Volatile Analysis of the Samples Collected for the Fourth Avenue & Gambell Parking Lot Site Inspection - Case Number 42677, SDG JRZD3

From: Donald M. Brown, QA Chemist ^{DMB}
USEPA Region 10, Office of Environmental Assessment, Environmental Services Unit

To: Brandon Perkins, Site Assessment Manager
USEPA Region 10, Office of Environmental Cleanup

CC: Renee Nordeen, Ecology & Environment, Inc.

The quality assurance (QA) review of the analytical data generated from the analysis of twenty (20) soil/sediment samples collected from the above referenced site has been completed. These samples were analyzed for Volatile Organic Compounds (VOCs) by Liberty Analytical Corporation located in Cary, North Carolina.

All sample analyses were evaluated following EPA's Stage 4 Data Validation Electronic/Manual Process (S4VEM). The validation was conducted and appropriate qualifiers were applied according to the Quality Control Specifications outlined in the Sampling and Quality Assurance Plan for the Fourth Avenue and Gambell Parking Lot site (June 2012); the technical specifications of the EPA Contract Laboratory Program's (CLP) Statement of Work (SOW) for Multi-Media, Multi-Concentration Organic Analyses (SOM01.2); the Contract Laboratory Program's National Functional Guidelines for Organic Data Review; and the Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use (EPA-540-R08-005). Some of the data quality elements were qualified using the reviewer's professional judgment. The conclusions presented herein are based on the information provided for the review.

A summary of samples evaluated in this validation report and the pertinent dates for sample collection, sample receipt at the laboratory, extraction, and analyses is attached along with the validated data.

Sample JRYW7 was reanalyzed as a medium level solid to bring the concentration of volatile compound tetrachloroethene within the linear range of the instrument. The result for this compound in this sample is reported from the medium level analysis and the reporting limit is elevated.

I. QUALITY CONTROL RESULTS SUMMARY

Volatile Organic Analysis		
Quality Control Test	Outliers?	Evaluation Criteria
Blanks	Y*	Non-detect or < 5X Blank [†]
Initial Calibration	Y*	RRF < 0.05 or ≤ 30% RSD
Continuing Calibration Verification	N	RRF < 0.05 or Open: ≤ 25% D, Close: ≤ 50% D
Deuterated Monitoring Compounds	Y*	Varies by Compound
Internal Standards	N	50 – 200% of 12-hour standard

*See the Manual/Electronic Data Review Results section below for outliers and qualification of affected data.

†10X Blank for ketones or solvents.

(Note: RRF = Relative Response Factor, RSD = Relative Standard Deviation, D = Difference)

II. DATA QUALIFICATIONS

Summary of Validation Qualifiers Applied:

Data qualifications applied after the manual and electronic data review can be found in the attached "Manual/Electronic Data Review Results" section of this report.

Data Qualifiers

The following is a list of validation qualifiers applied to the sample result(s) when needed to indicate associated out-of-control QA/QC results.

Data Qualifiers		
	U	The analyte was not detected at or above the reported result.
	J	The analyte was positively identified. The associated numerical result is an estimate.
	UJ	The analyte was not detected at or above the reported estimated result. The associated numerical value is an estimate of the quantitation limit of the analyte in this sample.
	R	The data are unusable for all purposes.
	N	There is evidence the analyte is present in this sample.
	JN	There is evidence that the analyte is present. The associated numerical result is an estimate.

Data Validation Report Volatile Analysis
Samples Collected for
4th Ave & Gambell Parking Lot, 42677, SDG JRZD3

For site assessment and investigations, the following bias qualifiers are applied to the data in addition to the above data qualifiers when necessary to allow for data analysis and interpretation using Pre-Score software calculations for National Priority Listing Hazard Ranking Scoring (NPL-HRS).

Bias Qualifiers	
L	Low bias.
H	High bias.
Q	The result is estimated because the concentration is below the Contract Required Quantitation Limits (CRQLs).
K	Unknown bias.

Attachments:

Sample Summary Report
Manual/Electronic Data Review Results
Analytical Sample Listing (Report #6)

Sample Summary Report

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRYT5	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284600	pH:		Sample Date:	07112012	Sample Time:	08:38:00
% Moisture :	3.48			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoromethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluoromethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	19	ug/kg	1.0		U	Yes	S4VEM
Carbon Disulfide	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	5.1	ug/kg	1.0	JB	U	Yes	S4VEM
trans-1,2-Dichloroethene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	10	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Carbon tetrachloride	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	100	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	5.1	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Methylcyclohexane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichloromethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	10	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,3-Dichloropropene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	10	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	5.1	ug/kg	1.0	U	U	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRYT6	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284601	pH:		Sample Date:	07112012	Sample Time:	08:41:00
% Moisture :	4.56			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	14	ug/kg	1.0		U	Yes	S4VEM
Carbon Disulfide	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	4.7	ug/kg	1.0	JB	U	Yes	S4VEM
trans-1,2-Dichloroethene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	9.4	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Carbon tetrachloride	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	94	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	4.7	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	9.4	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,3-Dichloropropene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	9.4	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRYT7	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284602	pH:		Sample Date:	07112012	Sample Time:	08:52:00
% Moisture :	4.15			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	18	ug/kg	1.0		U	Yes	S4VEM
Carbon Disulfide	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	5.4	ug/kg	1.0	JB	U	Yes	S4VEM
trans-1,2-Dichloroethene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	11	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Carbon tetrachloride	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	110	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	5.4	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	11	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	5.4	ug/kg	1.0	J	U	Yes	S4VEM
trans-1,3-Dichloropropene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	11	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	5.4	ug/kg	1.0	U	UJK	Yes	S4VEM
Ethylbenzene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	5.4	ug/kg	1.0	U	UJK	Yes	S4VEM
1,4-Dichlorobenzene	5.4	ug/kg	1.0	U	UJK	Yes	S4VEM
1,2-Dichlorobenzene	5.4	ug/kg	1.0	U	UJK	Yes	S4VEM
1,2-Dibromo-3-chloropropane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	5.4	ug/kg	1.0	U	UJK	Yes	S4VEM
1,2,3-Trichlorobenzene	5.4	ug/kg	1.0	U	UJK	Yes	S4VEM
alpha-Methylstyrene	24	ug/kg	1.0	JN	JN	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRYT8	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284603	pH:		Sample Date:	07112012	Sample Time:	08:56:00
% Moisture :	5.15			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	12	ug/kg	1.0		U	Yes	S4VEM
Carbon Disulfide	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	4.5	ug/kg	1.0	JB	U	Yes	S4VEM
trans-1,2-Dichloroethene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	9.0	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Carbon tetrachloride	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	90	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	4.5	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	9.0	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	4.5	ug/kg	1.0	J	U	Yes	S4VEM
trans-1,3-Dichloropropene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	9.0	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	4.5	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	4.5	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	4.5	ug/kg	1.0	U	U	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRYT9	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284604	pH:		Sample Date:	07112012	Sample Time:	09:08:00
% Moisture :	6.82			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	13	ug/kg	1.0		U	Yes	S4VEM
Carbon Disulfide	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	4.7	ug/kg	1.0	JB	U	Yes	S4VEM
trans-1,2-Dichloroethene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	9.4	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Carbon tetrachloride	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	94	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	4.7	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	9.4	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	4.7	ug/kg	1.0	J	U	Yes	S4VEM
trans-1,3-Dichloropropene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	9.4	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRYW1	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284605	pH:		Sample Date:	07112012	Sample Time:	09:15:00
% Moisture :	4.22			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	4.8	ug/kg	1.0	U	UJK	Yes	S4VEM
Bromomethane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	9.6	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon Disulfide	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	4.8	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,2-Dichloroethene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	9.6	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromet hane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	4.8	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon tetrachloride	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	96	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	4.8	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	9.6	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,3-Dichloropropene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	9.6	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	4.8	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	4.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	4.8	ug/kg	1.0	U	U	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRYW2	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284607	pH:		Sample Date:	07/11/2012	Sample Time:	09:44:00
% Moisture :	5.92			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	12	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon Disulfide	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	5.8	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,2-Dichloroethene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	5.8	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon tetrachloride	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	120	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	5.8	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,3-Dichloropropene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethylene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRYW3	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284608	pH:		Sample Date:	07112012	Sample Time:	09:53:00
% Moisture :	21.31			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	190	ug/kg	1.0	B		Yes	S4VEM
Carbon Disulfide	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	5.4	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,2-Dichloroethene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	11	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	5.4	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon tetrachloride	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	110	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	5.4	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	11	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	5.4	ug/kg	1.0	J	U	Yes	S4VEM
trans-1,3-Dichloropropene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethylene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	11	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	5.4	ug/kg	1.0	U	U	Yes	S4VEM
Total Alkane TICs	5.8	ug/kg	1.0	JB	JN	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRYW5	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284610	pH:		Sample Date:	07102012	Sample Time:	12:56:00
% Moisture :	9.03			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	44	ug/kg	1.0	B	U	Yes	S4VEM
Carbon Disulfide	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	6.4	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,2-Dichloroethene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	13	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	6.4	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon tetrachloride	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	130	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	6.4	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	13	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	6.4	ug/kg	1.0	J	U	Yes	S4VEM
trans-1,3-Dichloropropene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	16	ug/kg	1.0		JH	Yes	S4VEM
2-Hexanone	13	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	6.4	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	6.4	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	6.4	ug/kg	1.0	U	U	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRYW6	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284611	pH:		Sample Date:	07102012	Sample Time:	13:09:00
% Moisture:	2.88			% Solids:			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	12	ug/kg	1.0	B	U	Yes	S4VEM
Carbon Disulfide	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	4.6	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,2-Dichloroethene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	9.2	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	4.6	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon tetrachloride	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	92	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroproppane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	4.6	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	9.2	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	4.6	ug/kg	1.0	J	U	Yes	S4VEM
trans-1,3-Dichloropropene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	12	ug/kg	1.0		JH	Yes	S4VEM
2-Hexanone	9.2	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	4.6	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	4.6	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	4.6	ug/kg	1.0	U	U	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTV
Sample Number:	JRYW7	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284612	pH:		Sample Date:	07102012	Sample Time:	13:18:00
% Moisture :	3.93			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	15	ug/kg	1.0	B	U	Yes	S4VEM
Carbon Disulfide	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	5.1	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,2-Dichloroethene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	10	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	5.1	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon tetrachloride	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	100	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorm	5.1	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	10	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	5.1	ug/kg	1.0	J	U	Yes	S4VEM
trans-1,3-Dichloropropene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	740	ug/kg	1.0	E	R	No	S4VEM
2-Hexanone	10	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	5.1	ug/kg	1.0	U	UJK	Yes	S4VEM
Ethylbenzene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	5.1	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	5.1	ug/kg	1.0	U	UJK	Yes	S4VEM
1,4-Dichlorobenzene	5.1	ug/kg	1.0	U	UJK	Yes	S4VEM
1,2-Dichlorobenzene	5.1	ug/kg	1.0	U	UJK	Yes	S4VEM
1,2-Dibromo-3-chloropropane	5.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	5.1	ug/kg	1.0	U	UJK	Yes	S4VEM
1,2,3-Trichlorobenzene	5.1	ug/kg	1.0	U	UJK	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRYW7ME	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284612	pH:		Sample Date:	07102012	Sample Time:	13:18:00
% Moisture :	3.93			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	240	ug/kg	1.0	U	R	No	S4VEM
Chloromethane	240	ug/kg	1.0	U	R	No	S4VEM
Vinyl chloride	240	ug/kg	1.0	U	R	No	S4VEM
Bromomethane	240	ug/kg	1.0	U	R	No	S4VEM
Chloroethane	240	ug/kg	1.0	U	R	No	S4VEM
Trichlorofluorom ethane	240	ug/kg	1.0	U	R	No	S4VEM
1,1-Dichloroethene	240	ug/kg	1.0	U	R	No	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	240	ug/kg	1.0	U	R	No	S4VEM
Acetone	480	ug/kg	1.0	J	R	No	S4VEM
Carbon Disulfide	240	ug/kg	1.0	U	R	No	S4VEM
Methyl acetate	240	ug/kg	1.0	U	R	No	S4VEM
Methylene chloride	240	ug/kg	1.0	U	R	No	S4VEM
trans-1,2-Dichloroethene	240	ug/kg	1.0	U	R	No	S4VEM
Methyl tert-butyl ether	240	ug/kg	1.0	U	R	No	S4VEM
1,1-Dichloroethane	240	ug/kg	1.0	U	R	No	S4VEM
cis-1,2-Dichloroethene	240	ug/kg	1.0	U	R	No	S4VEM
2-Butanone	480	ug/kg	1.0	U	R	No	S4VEM
Bromochloromethane	240	ug/kg	1.0	U	R	No	S4VEM
Chloroform	240	ug/kg	1.0	U	R	No	S4VEM
1,1,1-Trichloroethane	240	ug/kg	1.0	U	R	No	S4VEM
Cyclohexane	240	ug/kg	1.0	U	R	No	S4VEM
Carbon tetrachloride	240	ug/kg	1.0	U	R	No	S4VEM
Benzene	240	ug/kg	1.0	U	R	No	S4VEM
1,2-Dichloroethane	240	ug/kg	1.0	U	R	No	S4VEM
1,4-Dioxane	4800	ug/kg	1.0	U	R	No	S4VEM
Trichloroethene	240	ug/kg	1.0	U	R	No	S4VEM
Methylcyclohexane	240	ug/kg	1.0	U	R	No	S4VEM
1,2-Dichloropropane	240	ug/kg	1.0	U	R	No	S4VEM
Bromodichlorom	240	ug/kg	1.0	U	R	No	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	240	ug/kg	1.0	U	R	No	S4VEM
cis-1,3-Dichloropropene	240	ug/kg	1.0	U	R	No	S4VEM
4-Methyl-2-pentanone	480	ug/kg	1.0	U	R	No	S4VEM
Toluene	240	ug/kg	1.0	U	R	No	S4VEM
trans-1,3-Dichloropropene	240	ug/kg	1.0	U	R	No	S4VEM
1,1,2-Trichloroethane	240	ug/kg	1.0	U	R	No	S4VEM
Tetrachloroethene	330	ug/kg	1.0		JH	Yes	S4VEM
2-Hexanone	480	ug/kg	1.0	U	R	No	S4VEM
Dibromoethane	240	ug/kg	1.0	U	R	No	S4VEM
1,2-Dibromoethane	240	ug/kg	1.0	U	R	No	S4VEM
Chlorobenzene	240	ug/kg	1.0	U	R	No	S4VEM
Ethylbenzene	240	ug/kg	1.0	U	R	No	S4VEM
o-Xylene	240	ug/kg	1.0	U	R	No	S4VEM
m,p-Xylene	240	ug/kg	1.0	U	R	No	S4VEM
Styrene	240	ug/kg	1.0	U	R	No	S4VEM
Bromoform	240	ug/kg	1.0	U	R	No	S4VEM
Isopropylbenzene	240	ug/kg	1.0	U	R	No	S4VEM
1,1,2,2-Tetrachloroethane	240	ug/kg	1.0	U	R	No	S4VEM
1,3-Dichlorobenzene	240	ug/kg	1.0	U	R	No	S4VEM
1,4-Dichlorobenzene	240	ug/kg	1.0	U	R	No	S4VEM
1,2-Dichlorobenzene	240	ug/kg	1.0	U	R	No	S4VEM
1,2-Dibromo-3-chloropropane	240	ug/kg	1.0	U	R	No	S4VEM
1,2,4-Trichlorobenzene	240	ug/kg	1.0	U	R	No	S4VEM
1,2,3-Trichlorobenzene	240	ug/kg	1.0	U	R	No	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRYW8	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284613	pH:		Sample Date:	07102012	Sample Time:	13:27:00
% Moisture :	4.82			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	9.4	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon Disulfide	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	4.7	ug/kg	1.0	J	U	Yes	S4VEM
trans-1,2-Dichloroethene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	9.4	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	4.7	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon tetrachloride	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	94	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	4.7	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	9.4	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	4.7	ug/kg	1.0	JB	U	Yes	S4VEM
trans-1,3-Dichloropropene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethylene	6.0	ug/kg	1.0		JHm	Yes	S4VEM
2-Hexanone	9.4	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	4.7	ug/kg	1.0	U	U	Yes	S4VEM
Total Alkane TICs	7.8	ug/kg	1.0	J	JN	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRZD3	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284726	pH:		Sample Date:	07102012	Sample Time:	09:00:00
% Moisture :	25.84			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoromethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluoromethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	19	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon Disulfide	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	9.5	ug/kg	1.0	J	U	Yes	S4VEM
trans-1,2-Dichloroethene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	19	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	9.5	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon tetrachloride	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	190	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	9.5	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	19	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,3-Dichloropropene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	19	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	9.5	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzenes	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	9.5	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	9.5	ug/kg	1.0	U	U	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRZD3MS	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284726	pH:		Sample Date:	07102012	Sample Time:	09:00:00
% Moisture :	25.84			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
1,1-Dichloroethene	65	ug/kg	1.0		J	Yes	S4VEM
Dichlorodifluoromethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Benzene	71	ug/kg	1.0		J	Yes	S4VEM
Chloromethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	62	ug/kg	1.0		J	Yes	S4VEM
Vinyl chloride	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Toluene	67	ug/kg	1.0		J	Yes	S4VEM
Bromomethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Chlorobenzene	56	ug/kg	1.0		J	Yes	S4VEM
Chloroethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Trichlorofluoromethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Acetone	53	ug/kg	1.0	B	J	Yes	S4VEM
Carbon Disulfide	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Methyl acetate	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Methylene chloride	6.4	ug/kg	1.0	J	UJ	Yes	S4VEM
trans-1,2-Dichloroethene	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Methyl tert-butyl ether	6.4	ug/kg	1.0	U	R	Yes	S4VEM
1,1-Dichloroethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
cis-1,2-Dichloroethene	6.4	ug/kg	1.0	U	R	Yes	S4VEM
2-Butanone	13	ug/kg	1.0	U	R	Yes	S4VEM
Bromochloromethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Chloroform	6.4	ug/kg	1.0	U	R	Yes	S4VEM
1,1,1-Trichloroethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Cyclohexane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Carbon tetrachloride	6.4	ug/kg	1.0	U	R	Yes	S4VEM
1,2-Dichloroethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
1,4-Dioxane	130	ug/kg	1.0	U	R	Yes	S4VEM
Methylcyclohexane	6.4	ug/kg	1.0	U	R	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
1,2-Dichloropropane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Bromodichloromethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
cis-1,3-Dichloropropene	6.4	ug/kg	1.0	U	R	Yes	S4VEM
4-Methyl-2-pentanone	13	ug/kg	1.0	U	R	Yes	S4VEM
trans-1,3-Dichloropropene	6.4	ug/kg	1.0	U	R	Yes	S4VEM
1,1,2-Trichloroethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Tetrachloroethene	6.4	ug/kg	1.0	U	R	Yes	S4VEM
2-Hexanone	13	ug/kg	1.0	U	R	Yes	S4VEM
Dibromochloromethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
1,2-Dibromoethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Ethylbenzene	6.4	ug/kg	1.0	U	R	Yes	S4VEM
o-Xylene	6.4	ug/kg	1.0	U	R	Yes	S4VEM
m,p-Xylene	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Styrene	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Bromoform	6.4	ug/kg	1.0	U	R	Yes	S4VEM
Isopropylbenzenes	6.4	ug/kg	1.0	U	R	Yes	S4VEM
1,1,2,2-Tetrachloroethane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
1,3-Dichlorobenzene	6.4	ug/kg	1.0	U	R	Yes	S4VEM
1,4-Dichlorobenzene	6.4	ug/kg	1.0	U	R	Yes	S4VEM
1,2-Dichlorobenzene	6.4	ug/kg	1.0	U	R	Yes	S4VEM
1,2-Dibromo-3-chloropropane	6.4	ug/kg	1.0	U	R	Yes	S4VEM
1,2,4-Trichlorobenzene	6.4	ug/kg	1.0	U	R	Yes	S4VEM
1,2,3-Trichlorobenzene	6.4	ug/kg	1.0	U	R	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRZD3MSD	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284726	pH:		Sample Date:	07102012	Sample Time:	09:00:00
% Moisture :	25.84			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
1,1-Dichloroethene	74	ug/kg	1.0		J	Yes	S4VEM
Dichlorodifluoromethane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Chloromethane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Benzene	80	ug/kg	1.0		J	Yes	S4VEM
Vinyl chloride	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	73	ug/kg	1.0		J	Yes	S4VEM
Bromomethane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Toluene	77	ug/kg	1.0		J	Yes	S4VEM
Chlorobenzene	72	ug/kg	1.0		J	Yes	S4VEM
Chloroethane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Trichlorofluoromethane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Acetone	14	ug/kg	1.0	B	UJ	Yes	S4VEM
Carbon Disulfide	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Methyl acetate	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Methylene chloride	7.2	ug/kg	1.0	J	UJ	Yes	S4VEM
trans-1,2-Dichloroethene	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Methyl tert-butyl ether	7.2	ug/kg	1.0	U	R	Yes	S4VEM
1,1-Dichloroethane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
cis-1,2-Dichloroethene	7.2	ug/kg	1.0	U	R	Yes	S4VEM
2-Butanone	14	ug/kg	1.0	U	R	Yes	S4VEM
Bromoform	7.2	ug/kg	1.0	U	R	Yes	S4VEM
1,1,1-Trichloroethane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Cyclohexane	7.2	ug/kg	1.0	JB	UJ	Yes	S4VEM
Carbon tetrachloride	7.2	ug/kg	1.0	U	R	Yes	S4VEM
1,2-Dichloroethane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
1,4-Dioxane	140	ug/kg	1.0	U	R	Yes	S4VEM
Methylcyclohexane	7.2	ug/kg	1.0	U	R	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
1,2-Dichloropropane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Bromodichloromethane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
cis-1,3-Dichloropropene	7.2	ug/kg	1.0	U	R	Yes	S4VEM
4-Methyl-2-pentanone	14	ug/kg	1.0	U	R	Yes	S4VEM
trans-1,3-Dichloropropene	7.2	ug/kg	1.0	U	R	Yes	S4VEM
1,1,2-Trichloroethane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Tetrachloroethene	7.2	ug/kg	1.0	U	R	Yes	S4VEM
2-Hexanone	14	ug/kg	1.0	U	R	Yes	S4VEM
Dibromochloromethane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
1,2-Dibromoethane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Ethylbenzene	7.2	ug/kg	1.0	U	R	Yes	S4VEM
o-Xylene	7.2	ug/kg	1.0	U	R	Yes	S4VEM
m,p-Xylene	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Styrene	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Bromoform	7.2	ug/kg	1.0	U	R	Yes	S4VEM
Isopropylbenzenes	7.2	ug/kg	1.0	U	R	Yes	S4VEM
1,1,2,2-Tetrachloroethane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
1,3-Dichlorobenzene	7.2	ug/kg	1.0	U	R	Yes	S4VEM
1,4-Dichlorobenzene	7.2	ug/kg	1.0	U	R	Yes	S4VEM
1,2-Dichlorobenzene	7.2	ug/kg	1.0	U	R	Yes	S4VEM
1,2-Dibromo-3-chloropropane	7.2	ug/kg	1.0	U	R	Yes	S4VEM
1,2,4-Trichlorobenzene	7.2	ug/kg	1.0	U	R	Yes	S4VEM
1,2,3-Trichlorobenzene	7.2	ug/kg	1.0	U	R	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRZD6	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284729	pH:		Sample Date:	07102012	Sample Time:	06:55:00
% Moisture :	19.75			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	11	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon Disulfide	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	5.6	ug/kg	1.0	JB	U	Yes	S4VEM
trans-1,2-Dichloroethene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	11	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	5.6	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon tetrachloride	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	110	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	5.6	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	11	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,3-Dichloropropene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethylene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	11	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	5.6	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	5.6	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	5.6	ug/kg	1.0	U	U	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRZD7	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284730	pH:		Sample Date:	07102012	Sample Time:	07:20:00
% Moisture :	38.68			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	18	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	18	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	18	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	18	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	18	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	18	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	18	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	18	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	120	ug/kg	1.0	B	U	Yes	S4VEM
Carbon Disulfide	18	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	18	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	18	ug/kg	1.0	JB	U	Yes	S4VEM
trans-1,2-Dichloroethene	18	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	18	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	18	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	18	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	35	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	18	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	18	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	18	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	18	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon tetrachloride	18	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	18	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	18	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	350	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	18	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	18	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	18	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	18	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	18	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	18	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	35	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	18	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,3-Dichloropropene	18	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	18	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	18	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	35	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	18	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	18	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	18	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	18	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	18	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	18	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	18	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	18	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzenec	18	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	18	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	18	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	18	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	18	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	18	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	18	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	18	ug/kg	1.0	U	U	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRZD8	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284731	pH:		Sample Date:	07102012	Sample Time:	07:35:00
% Moisture :	15.75			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	11	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon Disulfide	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	5.3	ug/kg	1.0	JB	U	Yes	S4VEM
trans-1,2-Dichloroethene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	11	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	5.3	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon tetrachloride	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	110	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroproppane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	5.3	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	11	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,3-Dichloropropene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	11	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	5.3	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	5.3	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	5.3	ug/kg	1.0	U	U	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRZD9	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284732	pH:		Sample Date:	07102012	Sample Time:	07:50:00
% Moisture :	19.42			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	12	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon Disulfide	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	6.1	ug/kg	1.0	JB	U	Yes	S4VEM
trans-1,2-Dichloroethene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	6.1	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon tetrachloride	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	120	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichloromethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,3-Dichloropropene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethylene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	6.1	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	6.1	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	6.1	ug/kg	1.0	U	U	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRZE0	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284733	pH:		Sample Date:	07102012	Sample Time:	08:00:00
% Moisture :	21.72			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	12	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon Disulfide	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	5.9	ug/kg	1.0	JB	U	Yes	S4VEM
trans-1,2-Dichloroethene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	5.9	ug/kg	1.0	JB	U	Yes	S4VEM
Carbon tetrachloride	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	120	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	5.9	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,3-Dichloropropene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	5.9	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	5.9	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	5.9	ug/kg	1.0	U	U	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRZE1	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284734	pH:		Sample Date:	07/02/2012	Sample Time:	08:15:00
% Moisture :	22.80			% Solids:			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoromethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluoroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	84	ug/kg	1.0		U	Yes	S4VEM
Carbon Disulfide	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	5.8	ug/kg	1.0	JB	U	Yes	S4VEM
trans-1,2-Dichloroethene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Carbon tetrachloride	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	120	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	5.8	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,3-Dichloropropene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
2-Hexanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzenes	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Dimethyl Sulfide	13	ug/kg	1.0	JN	JN	Yes	S4VEM
3-Octanone	23	ug/kg	1.0	JN	JN	Yes	S4VEM
Benzaldehyde	6.1	ug/kg	1.0	JN	JN	Yes	S4VEM

Case No:	42677	Contract:	EPW11032	SDG No:	JRZD3	Lab Code:	LIBRTY
Sample Number:	JRZE2	Method:	VOA_Low_Med	Matrix:	Soil	MA Number:	DEFAULT
Sample Location:	12284735	pH:		Sample Date:	07102012	Sample Time:	08:30:00
% Moisture :	17.64			% Solids :			

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
Dichlorodifluoro methane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Chloromethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Vinyl chloride	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Bromomethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Chloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Trichlorofluorom ethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Acetone	12	ug/kg	1.0	J	U	Yes	S4VEM
Carbon Disulfide	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Methyl acetate	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Methylene chloride	5.8	ug/kg	1.0	-JB	U	Yes	S4VEM
trans-1,2-Dichloroethene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Methyl tert-butyl ether	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1-Dichloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,2-Dichloroethene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
2-Butanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Bromochloromethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Chloroform	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,1-Trichloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Cyclohexane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Carbon tetrachloride	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Benzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dioxane	120	ug/kg	1.0	U	R	Yes	S4VEM
Trichloroethene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Methylcyclohexane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichloropropane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Bromodichlorom	5.8	ug/kg	1.0	U	U	Yes	S4VEM

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable	Validation Level
ethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
cis-1,3-Dichloropropene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
4-Methyl-2-pentanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Toluene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
trans-1,3-Dichloropropene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2-Trichloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Tetrachloroethene	1.4	ug/kg	1.0	J	JQ	Yes	S4VEM
2-Hexanone	12	ug/kg	1.0	U	U	Yes	S4VEM
Dibromochloromethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromoethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Chlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Ethylbenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
o-Xylene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
m,p-Xylene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Styrene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Bromoform	5.8	ug/kg	1.0	U	U	Yes	S4VEM
Isopropylbenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,1,2,2-Tetrachloroethane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,3-Dichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,4-Dichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2-Dibromo-3-chloropropane	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2,4-Trichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM
1,2,3-Trichlorobenzene	5.8	ug/kg	1.0	U	U	Yes	S4VEM

Manual/Electronic Data Review Results

VOLATILE ORGANIC ANALYSIS	
Blank Qualification Summary	
The following samples have analyte concentrations reported less than five times (<5X) [less than ten times (<10X) for ketones or solvents] the associated storage and/or method blank concentrations. Detected compounds are qualified U and are reported at the CRQL or at the level of detection. Non-detected compounds are not qualified.	
Acetone – All Samples except JRYW3 Methylene chloride – JRYT5, JRYT6, JRYT7, JRYT8, JRYT9, JRYW8, JRZD3, JRZD6, JRZD7, JRZD8, JRZD9, JRZE0, JRZE1, JRZE2 Cyclohexane – JRYW1, JRYW2, JRYW3, JRYW5, JRYW6, JRYW7, JRYW8, JRZD3, JRZD6, JRZD7, JRZD8, JRZD9, JRZE0 Toluene – JRYT7, JRYT8, JRYT9, JRYW3, JRYW5, JRYW6, JRYW7, JRYW8	
Initial Calibration Qualification Summary	
The following samples are associated with an initial calibration with a Relative Response Factor (RRF) outside criteria (i.e., <0.05). Detected compounds are qualified JK. Non-detected compounds are qualified R.	
1,4-Dioxane – All Samples	
Deuterated Monitoring Compound Qualification Summary	
The following samples have DMC recoveries below the lower limit of the criteria window. Detected compounds associated with the DMC are qualified JK. Non-detected compounds associated with the DMC are qualified UJK.	
Vinyl chloride-d ₃ – JRYW1 1,2-Dichlorobenzene -d ₄ – JRYT7, JRYW7	
Detection Limit Qualification Summary	
The following samples have analyte concentrations below the quantitation limit (CRQL). Detected compounds are qualified JQ. Non-detected compounds are not qualified.	
Tetrachloroethene – JRZE2	

National Functional Guidelines Report #06

Lab LIBRTY(COMPUCHEM) SDG JRZD3 Case 42677 Contract EPW11032 Region 10 DDTID 156065 SOW SOM01.2

Analytical Sample Listing

VOA_Low_Med

Sample Number	Sample Type	Matrix	Level	Sampling Date	Date Received	Extraction		Analysis		
						Type	Date/Time	Date/Time	GC Column	Instrument
JRYT5	Field_Sample	Soil	Low	07112012 08:38:00	07132012 09:23:00			07142012 23:13:00	SPB-624	5975hpms91
JRYT6	Field_Sample	Soil	Low	07112012 08:41:00	07132012 09:23:00			07142012 23:41:00	SPB-624	5975hpms91
JRYT7	Field_Sample	Soil	Low	07112012 08:52:00	07132012 09:23:00			07152012 00:09:00	SPB-624	5975hpms91
JRYT8	Field_Sample	Soil	Low	07112012 08:56:00	07132012 09:23:00			07152012 00:38:00	SPB-624	5975hpms91
JRYT9	Field_Sample	Soil	Low	07112012 09:08:00	07132012 09:23:00			07152012 01:06:00	SPB-624	5975hpms91
JRYW1	Field_Sample	Soil	Low	07112012 09:15:00	07132012 09:23:00			07152012 19:52:00	SPB-624	5972hp73
JRYW2	Field_Sample	Soil	Low	07112012 09:44:00	07132012 09:23:00			07152012 20:21:00	SPB-624	5972hp73
JRYW3	Field_Sample	Soil	Low	07112012 09:53:00	07132012 09:23:00			07152012 20:49:00	SPB-624	5972hp73
JRYW5	Field_Sample	Soil	Low	07102012 12:56:00	07132012 09:23:00			07152012 21:17:00	SPB-624	5972hp73
JRYW6	Field_Sample	Soil	Low	07102012 13:09:00	07132012 09:23:00			07152012 21:45:00	SPB-624	5972hp73
JRYW7	Field_Sample	Soil	Low	07102012 13:18:00	07132012 09:23:00			07152012 22:13:00	SPB-624	5972hp73
JRYW7ME	Field_Sample	Soil	Medium	07102012 13:18:00	07132012 09:23:00			07172012 15:07:00	SPB-624	5973hp90
JRYW8	Field_Sample	Soil	Low	07102012 13:27:00	07132012 09:23:00			07172012 10:34:00	SPB-624	5972hp73
JRZD3	Field_Sample	Soil	Low	07102012 09:00:00	07112012 09:18:00			07152012 19:13:00	SPB-624	5972hp73
JRZD3MS	Matrix_Spike	Soil	Low	07102012 09:00:00	07112012 09:18:00			07152012 23:10:00	SPB-624	5972hp73
JRZD3MSD	Matrix_Spike_Duplicate	Soil	Low	07102012 09:00:00	07112012 09:18:00			07152012 23:38:00	SPB-624	5972hp73
JRZD6	Field_Sample	Soil	Low	07102012 06:55:00	07112012 09:18:00			07142012 22:06:00	SPB-624	5972hp73
JRZD7	Field_Sample	Soil	Low	07102012 07:20:00	07112012 09:18:00			07142012 22:34:00	SPB-624	5972hp73
JRZD8	Field_Sample	Soil	Low	07102012 07:35:00	07112012 09:18:00			07142012 23:02:00	SPB-624	5972hp73
JRZD9	Field_Sample	Soil	Low	07102012 07:50:00	07112012 09:18:00			07142012 23:30:00	SPB-624	5972hp73
JRZE0	Field_Sample	Soil	Low	07102012 08:00:00	07112012 09:18:00			07142012 23:59:00	SPB-624	5972hp73
JRZE1	Field_Sample	Soil	Low	07102012 08:15:00	07112012 09:18:00			07142012 22:16:00	SPB-624	5975hpms91
JRZE2	Field_Sample	Soil	Low	07102012 08:30:00	07112012 09:18:00			07142012 22:45:00	SPB-624	5975hpms91